AGRICULTURAL ANALYSIS

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Prepared for

The County of San Diego

Project Proponent

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GLOSSARY OF TERMS AND ACRONYMS

CEQA	California Environmental Quality Act
Cumulative Projects	Projects which meet the criteria to be considered a part of the cumulative effect in the region. This would involve having agriculture on the property, and having at least some amount of Principal Farmlands.
CWA	San Diego County Water Authority
FMMP	Farmlands Mapping and Monitoring Program
Guidelines	This refers to the County of San Diego Guidelines for Determining Significance and Report Format Content Requirements, Agricultural Resources.
LARA Model	Local Agricultural Resource Assessment Model
Principal Farmlands	Important Farmlands with the categories of prime, Statewide Importance, or Unique as found on the Important Farmlands Map as a part of the Farmlands Mapping and Monitoring Program of the California Department of Conservation.
Prime Farmland Soils	Candidate Soils for Prime Farmlands
Statewide Importance Soils	Candidate Soils for Farmlands of Statewide Importance
PACE Program	Purchase of Agricultural Conservation Easement Program
PDS	Planning and Development Services
ZOI	Zone of Influence boundary as described in the LARA Model

SUMMARY (ABSTRACT)

This project is located in the Fallbrook Area of Northern San Diego County, west of the intersection of Winter Haven Road and Sunnycrest Lane, and is in the unincorporated area of San Diego County. The project proposes a 21 parcel Tentative Map on 26.48 acres. The parcels would range in size from 1.00 to 1.53 acres net, and the project will have a density of one dwelling unit per 1.1 acres net.

Agriculture began on this ranch in the early 1940's in the form of orange production, with avocados in the eastern area starting in the early 50's. The groves continued until the early 1990's but the avocados began thinning around 1995. By the early 2000's avocados had essentially disappeared. From the 1990's to the early 2000's the number of orange trees also continued to decline so that by the late 2000's, trees were no longer being maintained. At this point in time there are only 4 acres of unmaintained orange groves remaining.

This property has been determined by the San Diego County Agricultural Guidelines LARA Model to be an important agricultural resource, and thus mitigation will take place through off-site mitigation which must be acceptable to the Director of Planning & Development Services (PDS).

I.0 INTRODUCTION

1.1 Purpose of the Report

The purpose of this report is to determine the importance of on-site agricultural resources and assess the potential impacts to those resources as well as to determine any significant cumulative impacts to agricultural resources.

1.2 Project Location and Description

This project is located in the Fallbrook Area of Northern San Diego County, west of the intersection of Winterhaven Road and Sunnycrest Lane, and is in the unincorporated area of San Diego County (See Figures 1 and 2). The current Assessor's Parcel Number is 106-280-10-00.

The project proposes a 21 lot parcel Tentative Map on 26.48 acres. The parcels would range in size from 1.00 to 1.53 acres net, and the project will have a density of one dwelling unit per 1.1 acres net. See Figure 3.

The nearest offsite agricultural operation is to the west where there is a greenhouse operation. The greenhouses, at the nearest point, are 646 feet to the nearest residential pad proposed by this project.

There is a 20 foot road easement for Sunnyslope Lane, which runs along the eastern boundary of the property.

There will be 21 additional homes as a result of this subdivision as well as three 40 foot wide private roads running through the center and along the western side of the property.

Access to the project will be to the east, off Sunnycrest Lane, at a point about 256 feet north of the intersection of Sunnycrest and Winterhaven Road, which is a public road. Also, there will be a drainage easement on lot 4 and lot 11 which will connect roads A and B with detention basins proposed on those lots. Currently there is one house on the property located on proposed Lot 10.

1.3 Analysis Methods

1.3.1 Study Area

The study area includes the subject property to be developed, as well as all parcels within 1,320 feet of the smallest rectangle encompassing the entire subject property (See Figure 4). The subject property comprises 26.48 acres of this area, while the remainder constitutes 381.25 acres for a total of 407.73 acres.

The study area has been prepared in accordance with the County Agricultural Guidelines relating to the ZOI boundary, as part of the LARA Model.

Method:

Agricultural uses and other land uses were determined through a combination of several sources. The primary source was an aerial photo. This photo was enlarged so that agricultural areas as well as the types of agriculture could be identified. This was supplemented by discussions with the engineer and field visits. Please note that the measurements taken from the aerial photo are two-dimensional and do not account for topography. Therefore there may be slight deviations in some of the acreage figures in rough terrain. However, this method was deemed sufficiently accurate for the broad conclusions desired in this analysis.

Soils information was determined through the San Diego County Important Farmland Map, produced by the California Department of Conservation, and the Soil Survey for the San Diego Area produced by the U.S. Department of Agriculture Soil Conservation Service.

Climatic Data was determined through use of the University of California Extension Service publication entitled, Climates of San Diego County, Agricultural Relationships, as well as through use of the information provided in the above mentioned Soils Survey.

Historic aerial photos, as well as discussions with the engineer and owner were used to determine the historical status of agriculture on the property.

For a full listing of sources, please see “References” near the end of this report.

1.4 Environmental Setting (Existing Conditions)

1.4.1 Regional Context

An area was chosen that would function as the regional context, as well as the cumulative study area. The boundaries of this area were established by reviewing features of the landscape, which may isolate agriculture in this vicinity, from other agricultural areas in the County. These landscape features were primarily major areas of steep slope that would separate agricultural areas, major areas where no agricultural activity was taking place, and areas that had had substantial urban development.

The Regional Setting Area coincides with the Cumulative Study Area discussed later in this report. It is some 16,612 acres in size and is shown on Figure 5 in terms of topography. This area is a generally level.

The County General Plan shows regional categories of Semi Rural (SR) and over a large majority of the area with the exception of some Rural Land (RL) in the northern areas. The General Plan Designation for this area is a combination of SR1 and SR2, with some RL 20 and RL40 to the north.

About 55 percent of the cumulative study area is used for agriculture, or roughly 9,136 acres. There are also large areas scattered throughout the cumulative study area that are vacant. Agriculture in this area is primarily avocados and citrus, with and small areas of intensive truck farming and nurseries. The remainder of the area consists of estate homes or vacant land.

Climate in this region is similar to the inland San Diego County with slightly more rainfall and more extremes in climate than the coastal area with some freezes in lower lying areas. However, the climate is still very mild and the mild nature is an important factor for the agriculture that exists in this study area.

About 4,153 acres or 25 percent of the soils in the cumulative study area are classified as Prime or Farmlands of Statewide Importance. Generally the quality of soils in this area vary from fair to good, with the better soils found in the central part of Fallbrook. As indicated in the previous paragraph, climate plays a more important role in the agricultural development of this area than the soils.

Within this area, water supply is provided by the Fallbrook Public Utilities District in the north and the Rainbow Municipal Water District to the south, both of which are members of the San Diego Water Authority.

There is a church 973 feet to the southeast from the subject property. This church operates a pre-school five days a week from 8:00 to 2:00 and has a capacity of 64 children. Currently there are 50 pre-school children enrolled.

1.4.2 Onsite Agricultural Resources

Agriculture began on this ranch in the early 1940's in the form of orange production, with avocados in the eastern area starting in the early 50's. The groves continued until the early 1990's but the avocados began thinning around 1995. By the early 2000's avocados had essentially disappeared. From the 1990's to the early 2000's the number of orange trees also continued to decline so that by the late 2000's, trees were no longer being maintained. At this point in time there are only 4 acres of unmaintained orange groves remaining.

The FMMP designates 60 percent of this property as "Prime Farmlands", 20 percent is "Farmlands of Statewide importance, and 19 percent as "Farmlands of Local Importance." These farmlands are described in the FMMP discussion later in this section. Soils are further described in the next paragraph, and Figure 6 indicates those agricultural resources terms of soils found on site.

Soils

Soil Conservation Service:

The U.S. Department of Agriculture, Soil Conservation Service has prepared a Soil Survey for San Diego County. According to this survey two soil types constitute 100% of the soil formations on the subject property, and they are described below.

FaC: Located in the central, western and eastern portion(s) of the subject property, this Fallbrook Sandy Loam soil is on 5 to 9% slopes. It occupies 15.84 acres or 60% of the subject property. The fertility of this moderately sloping soil is rated as "medium," the runoff rate is slow to medium, permeability is moderate, and the erosion hazard is slight to moderate. This soil is rated as "Fair" for avocados, citrus, tomatoes, and truck crops; and is rated "Good" for flowers. The Capability Rating for this soil is IIIe-1 (19).

BlC: Located in the central and western portion(s) of the subject property, this Bonsall Sandy Loam soil is on 2 to 9% slopes. It occupies 10.64 acres or 40% of the subject property. The fertility of this gently to moderately sloping soil is rated as "medium," the runoff rate is slow to medium. Permeability is very slow, and the erosion hazard is slight to moderate. This soil is rated by the Soils Survey as "Fair" for flowers, but is not considered suitable for avocados, citrus, tomatoes, or truck crops. The Capability Rating for this soil is IIIe-3 (19).

FMMP Designations

The California Department of conservation has classified land into seven "Important Farmlands Categories." Annotated definitions of the relevant classifications are found below.

> Prime Farmland: Land with the best combination of physical and chemical characteristics able to sustain long-term production of agricultural crops.
>
> Farmland of Statewide Importance: Land with a good combination of physical and chemical characteristics for agricultural production, having only minor shortcomings, such as less ability to store soil moisture, compared to prime farmland.
>
> Unique Farmland: Land used for production of the state's major crops on soils not qualifying for prime or statewide importance. This land is usually

irrigated, but may include non-irrigated fruits and vegetables as found in some climatic zones in California.

Farmland of Local Importance: Land that meets all the characteristics of prime and statewide, with the exception of irrigation.

Urban and Built-up Land: Residential land with a density of at least six units per ten-acre parcel, as well as land used for industrial and commercial purposes, golf courses, landfills, airports, sewage treatment, and water control structures.

Other Land: Land which does not meet the criteria of any other category.

There are also Categories of Grazing Land, Other Land, and Water that have not been defined.

Figure 7 indicates that three Important Farmland Categories are found on the subject property. White represents "Farmlands of Local Importance and constitutes 19% or 5.15 acres. Lighter Green on this Figure represents Farmlands of Statewide Importance and constitute 20 percent or 5.15 acres, and Prime Farmland represents 60% or 15.9 acres.

History of Agricultural Use

Agriculture began on this ranch in the early 1940's in the form of orange production, with avocados in the eastern area starting in the early 50's. The groves continued until the early 1990's but the avocados began thinning around 1995. By the early 2000's avocados had essentially disappeared. From the 1990's to the early 2000's the number of orange trees also continued to decline so that by the late 2000's, trees were no longer being maintained. At this point in time there are only 4 acres of unmaintained orange groves remaining.

Climate

Information for Micro Climates in San Diego County is contained in the Climates of San Diego County Agricultural Relationships, published by the University of California Agricultural Extension Service. At the time of the publication of this document the nearest Weather Reporting Station to the subject property with precipitation data was the Fallbrook station and closest temperature data available was from the weather station in Vista.

The Fallbrook station is the closest with average monthly and seasonal precipitation data indicating average annual rainfall of 13.71" with 10.2" of the total coming just during the months of December, January, February and March.

The Vista Weather Station indicates an annual average maximum mean temperature of 74 degrees with an extreme high of 107 degrees and an extreme low of 27 degrees. The earliest estimated date of the first freeze was during November and the last estimated freeze is April.

Thus, the mildness of the microclimate of this area would be advantageous to the growing of semi-tropical crops.

Water

This property is entirely within the Fallbrook Public Utilities District. This District is a member of the County Water Authority and has direct access to imported water. There is a 12-inch water main in Winterhaven Road, along the south boundary of the property and a water meter on the subject property.

Williamson Act Contracts and Agricultural Preserves

The subject property is not and has never been in under a Williamson Act Contract or within an Agricultural Preserve.

1.4.3 Offsite Agricultural Resources

Offsite resources have been reviewed in terms of the study area previously discussed.

There is one property within the study area, which is under a Williamson Act Contract and within an Agricultural Preserve. This property is discussed under Section 3.2.a.1.

Figure 8 shows FMMP Designations for the Study Area. 11.1 percent of the study area is in Prime Farmland, 6.5 percent is in Farmlands of Statewide Importance, while 31.6 percent is in Farmlands of Local Importance, and 45.4 percent is in Urban and Built-Up Lands and Other Lands respectively.

Thus 45.4 percent of the Study Area is in a FMMP Designation, which is not considered agricultural land.

In terms of agricultural operations, there are 18.78 acres or 4.6 percent of the study area in agriculture. Of these, 5.08 acres or 1.2 percent of the study area are in Fruit Trees, primarily found in the north central portion of the study area. There are 13.7 acres or 3.4 percent in nurseries, primarily to the immediate west of the subject property and 20.9 acres devoted to nurseries, found in the western portion of the study area. The smallest distance between a proposed home pad and an existing agricultural operation would be approximately 646 feet.

Figure 9 shows agricultural operations within the study area.

1.4.4 Zoning and General Plan Designation

The property is zoned A70 (1 acre), Limited Agriculture with a minimum parcel size of 1 acre. The intent of the A70 Use Regulation is to create and preserve areas intended primarily for agricultural crop production.

The Regional Category of the General Plan for this property is SR, Semi Rural while the Designation is “SR 1”, Semi Rural with a density of 1 dwelling unit per acre.

2.0 ONSITE AGRICULTURAL RESOURCES

2.1 Local Agricultural Resources Assessment (LARA) Model

2.1.1 LARA Model Factors

The County of San Diego has approved a local methodology that is used to determine the importance of agricultural resources in the unincorporated area of San Diego County known as the Local Agricultural Resource Assessment (LARA) Model. The LARA Model takes into account six factors including the required factors of water, climate, soil quality, and the complementary factors of surrounding land uses, land use consistency, and slope in determining the importance of agricultural resources.

The following subheadings include a description of the project site’s rating for each LARA Model factor, including justification for the factor ratings assigned to the project site. Each factor receives a rating of high, moderate, or low importance based on site specific information as detailed in the LARA Model Instructions (Section 3.1 LARA Model Instructions, from the Agricultural Guidelines for Determining Significance). The factor ratings for the project site are summarized in Table 2, LARA Model Interpretation of LARA Model Results.

Water

The water rating for this project is “high”. This site is within the Fallbrook Public Utilities District and has imported water available, as well as an on-site water meter.

Climate

The climate rating for this project is “high”. It is located within Sunset Climate Zone 23. According to the Guidelines, property within this zone would be rated as “high”.

Soil Quality

The project's soil quality rating is based on the presence of soils that meet the quality criteria for Prime Farmland or Farmland of Statewide Significance as defined by the Farmland mapping and Monitoring Program that are available for agricultural use and that have been previously used for agriculture.

There are two on-site soils, Fallbrook Sandy Loam (FAC) and Bonsall Sandy Loam (BlC). The FMMP designates the FaC soil as a Prime Farmland Soil and the BlC as a soil of Statewide Significance. One factor in Table 2 is "Areas Unavailable for Agriculture," which are shown in Figure 10, and are essentially the areas surrounding the single family residence and some grove roads.

The acreage of each is shown in Table 2. Please note that the total acreage of soils in the second column do not amount to the actual 26.48 acres due to rounding and minor errors inherent in using a planimeter for measurement. The Soils Score for this property would be 0.8826, which results in a "high" rating.

Table 2

Soil Type	Acreage of Soil Type	Unavailable for Agricultural Use	Available for Agricultural Use	Proportion of Project Site	Candidate for Prime or SW	E X F
FaC	15.84	2	13.84	52.27%	1	0.5227
BlC	10.54	1.01	9.53	35.99%	1	0.3599
Total	26.38	Total	23.37			
					Matrix Score	0.8826

Surrounding Land Use

It was determined that of the 381.25 acres of the ZOI (not counting the subject property), 198.65 acres or 52 percent of this area was considered compatible with agriculture. Therefore according to the Guidelines, this project would have a rating of "high".

Land Use Consistency

The median parcel size of this project is 1.0 acres while the median parcel size of the ZOI minus the subject property is 1.21 acres. Therefore, since the median parcel size proposed for the project is less than the median parcel size within the ZOI, this project would have a rating of "high".

Slope

The average slope for this property in terms of Land Available for Agriculture is 10.4 percent. Therefore, according to the Guidelines, it would have a rating of "high".

2.1.2 LARA Model Results

This site was rated as high in all factors.

Table 2 LARA Model Results

			LARA Model Interpretation
Possible Scenarios	**Required Factors**	**Complementary Factors**	
Scenario 1	All three factors rated high	At least one factor rated high or moderate	The site is an important agricultural resource
Scenario 2	Two factors rated high one factor rated moderate	At least two factors rated high or moderate	
Scenario 3	One factor rated high two factors rated moderate	At least two factors rated high	
Scenario 4	All factors rated moderate	All factors rated high	
Scenario 5	At least one factor rated low importance	N/A	The site is not an important agricultural Resource
Scenario 6	All other model results		

Since all of the Required Factors are rated as high and all of the complementary are rated high or moderate, this project would fall within Scenario 1 and the interpretation of the LARA Model is that the site is an important agricultural resource.

2.2 Guidelines for the Determination of Significance

The following significance guideline is the basis for determining the significance of impacts to important onsite agricultural resources, as defined by the LARA Model, in San Diego County. Direct impacts to agricultural resources are potentially significant when a project would result in the following:

The project site has important agricultural resources as defined by the LARA Model; and the project would result in the conversion of agricultural resources that meet the soil quality criteria for Prime Farmland or Farmland of Statewide Importance, as defined by the FMMP; and, as a result, the

project would substantially impair the ongoing viability of the site for agricultural use."

2.3 Analysis of Project Results

The LARA Model has determined that this site is an important agricultural resource. There will be 3.01 acres of the site which are unavailable for agriculture and an additional 4.24 acres which have not been historically used for agriculture (See Figure 10a). This will leave 19.23 acres of direct impacts to agricultural resources, which will be mitigated as described in Section 2.4.

2.4 Mitigation Measures and Design Considerations

Since the LARA Model has determined that this site is an important resource, mitigation will be necessary. There will be 3.01 acres of the site which are unavailable for agriculture and an additional 4.24 acres which have not been historically used for agriculture. This will leave 19.23 acres of direct impacts to agricultural resources. Mitigation will be provided using one of the following:

1. A mitigation ratio of ½ to 1 would be acceptable if the mitigation site contained agricultural lands with Prime Farmland or Farmland of Statewide Importance soils that can also be utilized as foraging habitat for raptors (a biological assessment from a County approved biologist would be required to prove this);
2. A mitigation ratio of 1 to 1 for a site that contains agricultural lands with Prime Farmland or Farmland of Statewide Importance soils that are not utilized as foraging habitat for raptors (This option would only be acceptable if the PACE program is not available as an agricultural mitigation bank).
3. A mitigation ratio of 1 to 1 using the recently approved PACE program.

2.5 Conclusions

There will be direct impacts to agricultural resources on-site, which will be mitigated through the options described above, in Section 2.4.

3.0 OFFSITE AGRICULTURAL RESOURCES

3.1 Guidelines for the Determination of Significance

The following significance guidelines are the basis for determining the significance of indirect impacts to offsite agricultural operations and Williamson Act Contract land in San Diego County:

a. The project proposed a non-agricultural land use within one-quarter mile of an active agricultural operation or land under a Williamson Act Contract (Contract) and as a result of the project, land use conflicts between the agricultural operation or Contract land and the proposed project would likely occur and could result in conversion of agricultural resources to a non-agricultural use.

b. The project proposes a school, church, day care or other use that involves a concentration of people at certain times within one mile of an agricultural operation or land under Contract and as a result of the project, land use conflicts between the agricultural operation or Contract land and the proposed project would likely occur and could result in conversion of agricultural resources to a non-agricultural use.

c. The project would involve other changes to the existing environment, which due to their location or nature, could result in the conversion of offsite agricultural resource to a non-agricultural use or could adversely impact the viability of agriculture on land under a Contract.

3.2 Analysis of Project Effects

a. The project would propose a non-agricultural use within a quarter mile of land under a Contract, and within a quarter mile of an active agricultural operation but will not result in conflicts that are likely to occur and could result in the conversion of agricultural resources to a non-agricultural use for the following reasons.

1. There is a parcel under a Williamson Contract the east of the subject property known as AP78, Glasgow-B. The contract on this property was established in 1978. There was a Notice on Nonrenewal filed on December 4, 2007 which did not make the deadline of September 30th to be start the nonrenewal process on January 1, 2008. The owners were invited by the County to file a notice of nonrenewal the following year but there is no evidence that this occurred.

This property is 11.63 acres in size and approximately 630 feet removed from the subject property (See Figure 10b). There are, in the vicinity, 11 parcels smaller than the average size being proposed for the subject property which are closer in location to the Contract Property than the nearest parcel of this project. In addition, according to a field reconnaissance done in June of 2013, there appears to be only approximately1 acre of the property devoted to agriculture. Based on the distance separating the proposed project and the contract land, the proximity of smaller parcels already existing closer than the subject

property, and the lack of agricultural activity on the contract land, it is concluded that there will be no impact to the Contract lands, and conversion of agricultural operations on those Contract Lands is less than significant.

Further, there is a considerable separation between the residential uses proposed and the agricultural uses within the ZOI. The two closest active agricultural operations are to the west and north. To the west is a greenhouse operation which is 646 feet from the subject property, and to the north is an orchard of fruit trees, which are 949 feet from the subject property.

2. The parcels within the study area have already been partially developed at near the density proposed by this project. The median parcel size of this project is 1.0 acres while the median parcel size for the ZOI is 1.21. Additionally, of the 173 parcels in the ZOI, 143 or 83 percent of the parcels are under two acres. Thus, this project will be consistent with the existing development pattern, which has not resulted in conflicts that have caused the conversion of agricultural land.

3. The San Diego County Board of Supervisors, on February 12, 2003, amended the San Diego County Code of Regulatory Ordinances to require purchasers to be notified in writing that agricultural uses may exist near to property that the buyer is purchasing (Agricultural Enterprises and Consumer Information Ordinance (Section 64.401). The buyer must acknowledge by signature that such agricultural uses are likely to be nearby that may expose the buyer to certain irritations and inconveniences. Thus, anyone purchasing a parcel of this development must be notified of the near agricultural uses and the potential for irritations and inconveniences.

b. The project proposes 21 additional single family residences. It does not propose a school, church, day care or other use that involves a concentration of people at certain times.

c. The project would not involve other changes to the existing environment, which due to their location or nature, could result in the conversion of offsite agricultural resource. This is currently vacant land with remnants of previous agriculture, which will be changed to single family residences. The possibility of conflicts between these residences and the agriculture in the vicinity has previously been discussed.

3.3 Mitigation Design Considerations

It has been determined that mitigation for off-site impacts will not be necessary. This is due to the distances between the proposed residential uses and existing

agricultural operations, the consistency with the parcels in the ZOI and the proposed development, and the requirement that purchasers of residential uses in agricultural areas be notified of the potential for irritations and inconvenience.

3.4 Conclusions

In accordance with the stated significance guidelines it has been determined that the project as proposed will have a “less than significant effect” on agricultural resources in the study area.

4.0 CONFORMANCE WITH AGRICULUTRAL POLICIES

General Plan conformance will be addressed in the CEQA analysis of Land Use and Planning. There is no specific agricultural analysis that must be done to determine compliance with a policy.

5.0 CUMULATIVE IMPACTS

5.1 Guidelines for the Determination of Significance

The guidelines for determining the significance of cumulative impacts are based upon the same guidelines used to determine the significance of project level impacts except that the analysis will consider the significance of the cumulative impact of the individual project impact in combination with the impacts caused by the projects in the cumulative study area that would also impact important agricultural resources.

5.2 Analysis of Project Effects

Methodology

A list of cumulative projects has been compiled which are based upon past, present, and probable future projects that could cumulatively contribute to the projects impacts. Projects were considered which:

1. Have agricultural resources on site.

2. Fall within the Important Farmlands Categories of Prime Farmlands, Farmlands of Statewide Importance, or Unique Farmlands (referred to Principal Farmlands in this report) pursuant to the CEQA Guidelines, Appendix G. where one of the questions is

> “Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?”

Projects that meet these criteria are listed in Appendix C, with more detailed information listed in Appendix D, Tables 1, 2, 3.

These projects were determined through the following methodology.

An area was chosen that would function as a cumulative study area and is coterminous with the Area shown on Figure 5. The boundaries of this area were established by reviewing features of the landscape, which may isolate agricultural in this vicinity from other agricultural areas in the county. These landscape features were primarily major areas of steep slope that would separate agricultural areas, major areas where no agricultural activity was taking place, and areas that had had substantial urban development.

The cumulative study area was superimposed on the San Diego County GIS Discretionary Permit Map. This map indicates Major and Minor-Subdivisions, Major Use Permits, General Plan Amendments (GPA's), and Plan Amendment Authorizations (PAA's) both requested and approved since approximately January of 2000. Major Use Permits for cellular antenna sites were not included due to the very small area that is affected with these projects. This results in a gross number of projects of any type in the cumulative study area. In this way the selected projects could be identified that had been approved and were contemplated over the last 9 years.

A map of the cumulative study area was overlain with the County Vegetation Map to determine which of the selected projects identified in the study area occurred on lands used for agriculture. To make this determination, any project occurring on vegetation classified as agriculture or developed and disturbed land was considered. Disturbed and developed land was considered because the land may have originally been in agriculture, with the developed classification being a result of the selected projects. Since the GIS Map only used points to identify projects, any projects even remotely close to agriculture or urban vegetation types were considered.

The next step was to identify those approved and proposed projects that are occurring on land currently used for agriculture that have or would have an effect on principal farmlands within the cumulative study area. (For purposes of this study, the term "principal farmlands" refers to the land referenced in question one of the CEQA Guidelines, reproduced on the first page of this Section. These lands would include Prime Agricultural Lands, Agricultural Lands of Statewide Importance, and Unique Farmlands per the California Department Important Farmlands Map 2008). This was done by overlaying the cumulative study area with the appropriate portions of the important farmlands map. Projects not within a principal farmland were also eliminated from consideration. As above, the GIS Map only used points to identify projects, and selected projects even remotely close to principal farmlands were considered.

The plot plans and maps for those projects meeting both of the above tests were then obtained from the County Project Processing Counter or website (For purposes of this study, this last grouping of projects will be termed “Cumulative Projects”). The maps were then superimposed on the vegetation and farmlands maps to determine the principal farmlands in agriculture that were affected by the project.

Additionally, the maps were reviewed in conjunction with aerial photos to determine the type of agricultural activity occurring and how the project might have indirect impacts to the surrounding area. Finally, the maps were reviewed in terms of water availability, climate, and soils to determine if the project area was an important resource.

Results of the Cumulative Analysis

This area of Fallbrook is primarily devoted to avocados, citrus crops, and nursery products. The following statistics relate to San Diego County in its entirety and reflect the latest statistics available. In 2011, there were 17,673 acres of avocados planted with a value of $208,131,027. In 2012 there were 22,419 acres planted with a value of $157,901,949. Thus while the acreage planted increased by 4,746 acres, the value of avocados decreased by $50,229,078.

In terms of all citrus, in 2011 there were 13,487 acres planted with a value of $76,481,631. In 2012 there were 12,600 acres planted with a value of $116,857,854. Thus while the planted acreage decreased by 887 acres, the value of citrus increased by $40,376,223.

In terms of nursery products, including cut flowers, in 2011 there were 8,285 acres planted with a value of $1,015,357,650. In 2012 there were 8,831 acres planted with a value of $1,027,811,100. Thus during this time span, the acreage increased by 546 acres while the value increased by $12,453,450.

Thus all three of the primary agricultural products grown in this part of Fallbrook have increased in acreage County-wide between 2011 and 2012, and 2 of the 3 have increased in value. However, the increase in value of avocados far exceeds the loss in value by the other products. Thus taken together, there has been a decrease in value of the three primary agricultural products grown in Fallbrook of $2,600,595 between 2011 and 2012.

In terms of this cumulative area, specific information from this analysis by project is shown in Appendix D. Figure 11 shows the location of each project identified. It was determined that there were 28 projects meeting the criteria for the Cumulative Project List. The projects have been analyzed in terms of agricultural

resources on site, if the site is an important agricultural resource, what the estimate of direct agricultural impacts is, and estimate of potential indirect impacts.

Agricultural Resources:

Table one of Appendix D shows that eleven of these projects were engaged in the production of citrus crops, four in the production of avocados, with the remainder having no agriculture. The different factors reviewed are discussed below.

Is the Project an Important Agricultural Resource?

The question of whether a site would be considered an important agricultural resource was based upon a general analysis of soils, water, and climate.

In terms of water, the projects were given a score of "1" if the project was within a district that was a member of the County Water Authority and a score of "0" if the project was not within such a district. In this case, all projects were within the County Water Authority and received at rating of 1.

Climate was graded as a "1" if the property within in the Sunset Climate Zones of 13, 18-21, or 23 and a "0" if it is within any other zone. In this case all of the projects were in Climate Zone 23, and all received a score of "1".

Projects with candidate soil types are shown on Appendix D, Table 2. The results were based on the existence of soils that are candidates for prime farmland or farmland of statewide importance which cover more than 50 percent of the property and which received a score of "1'. All others received a score of "0".

Ten projects had prime or statewide importance soils covering more than 50% of the property and together constitute 133.88 acres. Thus, these projects are considered important agricultural resources.

Direct Project Estimate:

As far as could be determined, none of the projects have had an agricultural analysis prepared except for TM 5333. For the other 27 projects, that amount of the project in soils of prime farmlands and soils of Farmlands of Statewide were considered direct impacts, while the agricultural report for TM 5333 concluded that there were 26.06 acres of direct impact. This came to 131.82 acres as shown in Appendix D, Table 1.

Potential Indirect Impact Estimate:

Potential indirect impact estimates were quantified by assuming that any area adjacent to the project that is in agriculture will have an indirect impact to a depth of 50 feet. (50 feet was chosen in that this is the distance which one could reasonably expect the agricultural activities to impact new residences, which in turn could generate complaints, putting pressure on adjacent agriculture to relocate or stop operations. It also corresponds to the most common front yard setback for a residence, which is, in part, designed to protect the residence from noise and other activities occurring on the street. It should be noted that indirect impacts have also been addressed with the Agricultural Enterprises and Consumer Information Ordinance passed by the Board of Supervisors, as discussed in Section 3.2). Thus by locating the project and determining the length of the adjacent agriculture, multiplying by 50 and dividing by 43,560, the acreage of indirect impacts could be determined. In this case the indirect impact estimate was 6.32 acres.

Cumulative Effects

The direct and indirect impacts of the cumulative projects will be 131.84 acres or 3.2 percent of areas in soils of Prime and Statewide Importance Farmlands. When the subject property's 19.23 acres of direct impacts is added, the total of direct and indirect cumulative impacts become 151.07 acres. Since there are presently 4,153 acres of Prime and Statewide Importance soils in the cumulative study area, this amounts to a cumulative impact of 3.6 percent.

The cumulative effect is not considerably cumulative for the following reasons.

1. The amount of direct and indirect cumulative impacts is 151.07 acres. With the cumulative area having 4,153 acres of Prime and Statewide Importance soils, this amounts to approximately 3.6 percent of the existing of Prime and Statewide Importance soils. It does not appear that there is significant pressure to convert land to non-agricultural uses or that this conversion is leading to conflicts between residential and agricultural land uses which then result in the conversion of agricultural land

2. At an average County value of $9,274 per acre, the value of the cumulative projects direct and indirect impacts would be $1,401,023 per year. In 2012 the value of San Diego Agriculture was $1,747,069,810 which means these cumulative projects have or will impact .08% of the total value of agriculture in San Diego County.

3. As per the description above, 15 of the 28 Cumulative Projects or 260.09 acres are estimated to be an important agricultural resource. The acreage is 2.8 percent of the area being used for agriculture in the Cumulative Area.

5.3 Mitigation Measure and Design Considerations

No significant impacts have been identified in terms of cumulative effects and no mitigation measures or design considerations are proposed.

5.4 Conclusions

For reasons stated previously, the conclusion is that there will not be significant cumulative impacts as a result of this project.

6.0 SUMMARY OF PROJECT IMPACTS AND MITIGATION

Impacts have been identified, and mitigation measures are proposed. There will be 3.01 acres of the site which are unavailable for agriculture and an additional 4.24 acres which have not been historically used for agriculture. This will leave 19.23 acres of direct impacts to agricultural resources. Mitigation will be provided using one of the following:

1. A mitigation ratio of ½ to 1 would be acceptable if the mitigation site contained agricultural lands with Prime Farmland or Farmland of Statewide Importance soils that can also be utilized as foraging habitat for raptors (a biological assessment from a County approved biologist would be required to prove this);
2. A mitigation ratio of 1 to 1 for a site that contains agricultural lands with Prime Farmland or Farmland of Statewide Importance soils that are not utilized as foraging habitat for raptors (This option would only be acceptable if the PACE program is not available as an agricultural mitigation bank).
3. A mitigation ratio of 1 to 1 using the recently approved PACE program.

7.0 REFERENCES

Written Works:

County of San Diego, Department of Weights and Measures, 2011 Crop Statistics & Annual Report

County of San Diego, Department of Weights and Measures, 2010 Crop Statistics & Annual Report

University of California, Agricultural Extension Service. Climates of San Diego County—Agricultural Relationships, November 1970.

United States Department of Agriculture, Soil Conservation Service and Forest Service. Soil Survey San Diego Area, California. December 1973

California Department of Conservation, Division of Resource Protection, Farmland Mapping and Monitoring Program. Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance—San Diego County

California Department of Conservation, Division of Resource Protection, Farmland Mapping and Monitoring Program. 2000-2002 Land Use Conversion, Table A-26, San Diego County.

Historical Aerials.com Aerial Photos from 1981, and 1989.

Google Earth Historical Aerial Photos from 2003, 2008, 2010.

Maps:

California Department of Conservation, Division of Resource Protection, Farmland Mapping and Monitoring Program. San Diego County Important Farmland 2008

County of San Diego, Department of Public Works, Mapping Section. Fallbrook Community Plan.

County of San Diego, Department of Public Works, Mapping Section. County of San Diego General Plan.

County of San Diego, Department of Public Works, Mapping Section. County of San Diego—Agricultural Preserves.

SanGis, County of San Diego General Plan 2020 Reference Maps for Fallbrook as Follows:

Parcelization
Vegetation
Topography
Fallbrook Discretionary Project Status, October 2012

8.0 LIST OF PREPARERS AND PERSONS AND ORGANIZATION CONTACTED

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Eric Chagala--Planning Technician

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TECHNICAL APPENDICES / ATTACHMENTS

Appendix A

Figures

Appendix B

LARA Model Instructions

Appendix C

Cumulative Project List

Type	Project Number
3100	4971
3100	5220
3100	5268
3100	5364
3100	5449
3200	20381
3200	20434
3200	20443
3200	20444
3200	20486
3200	20562
3200	20581
3200	20587
3200	20592
3200	20714
3200	20844
3200	20952
3200	20976
3200	20980
3200	21010
3200	21047
3200	21073
3200	21079
3200	21130
3200	21135
3200	20534
3200	20985
3100	5553

Appendix D

Cumulative Analysis Work Sheets

Appendix D Page 1

Cumulative Project List Table 1

TM 5553

Type	Project Number	Agricultural Resources on Site	Important Agricultural Resource?[1]	Direct Impact Estimate[2]	Potential Indirect Impact Estimate[3]
3100	4971	None	1	2.43	0
3100	5220	None	1	16.24	0
3100	5268	None	1	1.29	0
3100	5364	Citrus	1	14.18	0
3100	5449	Citrus	1	12.9	0
3200	20381	None	0	0	0
3200	20434	None	0	0	26400
3200	20443	None	1	6.786	0
3200	20444	None	1	3.15	0
3200	20486	Avocados	0	0	0
3200	20562	None	1	2.64	0
3200	20581	Citrus	0	0	49100
3200	20587	None	0	0	0
3200	20592	Avocados	0	0	33950
3200	20714	Citrus	1	0.76	0
3200	20844	Citrus	0	0	14950
3200	20952	Avocados	0	0	45050
3200	20976	Citrus	1	2.8	0
3200	20980	Citrus	1	6	68300
3200	21010	Citrus	1	3.13	0
3200	21047	None	1	14.175	0
3200	21073	None	1	8.74	0
3200	21079	Citrus	0	0	12600
3200	21130	Avocados	0	0	0
3200	21135	None	0	0	0
3200	20534	Citrus	0	5.59	25100
3200	20985	None	0	0	0
3100	5333	Citrus	1	26.06	0
Totals				125.532	6.32
Total Project Impact					131.84

1 See Table 2

2 Where there has been no agricultural study and where the entire site was either Prime Farmlands, Farmlands of Statewide Importance,or Unique Farmlands, and the entire site in agricultural operations, site was viewed as a direct impact. If neither situation existed the calculation was made pursuant to the explanation in the text.

3 Indirect impacts were quantified by considering a 50 foot wide area along any boundary where the property adjoins areas currently in agriculture. Other than total, measurements are in square feet.

Cumulative Project List Table 2 Determination of Important Resource

Type	Project	Water[1]	Climate[2]	Soils[3]	Resource?[4]
3100	4971	1	1	0	1
3100	5220	1	1	1	1
3100	5268	1	1	0	1
3100	5364	1	1	1	1
3100	5449	1	1	0	1
3200	20381	1	1	0	0
3200	20434	1	1	0	0
3200	20443	1	1	1	1
3200	20444	1	1	1	1
3200	20486	1	1	0	0
3200	20562	1	1	1	1
3200	20581	1	1	0	0
3200	20587	1	1	0	0
3200	20592	1	1	0	0
3200	20714	1	1	0	1
3200	20844	1	1	0	0
3200	20952	1	1	0	0
3200	20976	1	1	0	1
3200	20980	1	1	1	1
3200	21010	1	1	0	1
3200	21047	1	1	1	1
3200	21073	1	1	1	1
3200	21079	1	1	0	0
3200	21130	1	1	0	0
3200	21135	1	1	0	0
3200	20534	1	1	1	0
3200	20985	1	1	0	0
3100	5553	1	1	1	1

1. If the project is within a district that is a member of the County Water Authority, there will be a 1, if not a 0

2. If the project is within Sunset Climate Zones 13 ,18-21 and 23, a 1, if any other, a 0

3. See Table 3

4. If any factor is rated 0, the property is not an important resource. If all are rated 1, it is an important resource.

Cumulative Project List Table 3 Soils

Type	Project	Soil Types[1]	Acreage of Project	Portion of Project	Acreage	Rating[2]
3100	4971	1	48.68	0.05	2.434	0
3100	5220	1	16.24	1	16.24	1
3100	5268	1	12.9	0.1	1.29	0
3100	5364	1	14.18	1	14.18	1
3100	5449	1	28.67	0.45	12.9015	0
3200	20381	0	24.5	0	0	0
3200	20434	0	9.78	0	0	0
3200	20443	1	11.31	0.6	6.786	1
3200	20444	1	4.2	0.75	3.15	1
3200	20486	0	6.41	0	0	0
3200	20562	1	5.28	0.5	2.64	1
3200	20581	0	21.81	0	0	0
3200	20587	0	4.06	0	0	0
3200	20592	0	7.29	0	0	0
3200	20714	1	8.48	0.09	0.7632	0
3200	20844	0	9.33	0	0	0
3200	20952	0	18.67	0	0	0
3200	20976	1	23.34	0.12	2.8008	0
3200	20980	1	10	0.6	6	1
3200	21010	1	11.17	0.28	3.1276	0
3200	21047	1	20.25	0.7	14.175	1
3200	21073	1	11.65	0.75	8.7375	1
3200	21079	0	3.77	0	0	0
3200	21130	0	9.53	0	0	0
3200	21135	0	5.5	0	0	0
3200	20534	0	5.59	1	5.59	1
3200	20985	0	4.34	0	0	0
3100	5553	1	33.74	.98	33.07	1
Totals			390.67		133.88	10

1. Only soils that are candidates for prime farmland or farmland of statewide importance. "1" if candidate soils exist on the property, "0" if none exist.

2. If portion equals.5 or above and there is al least 10 contiguous acres, rating will be 1 If portion is below .5 and there is less than 10 contiguous acres, rating will be 0.